

REMARKS/ARGUMENT

Independent Claims 1, 10, 12, 20, 24 and 25 stand rejected under 35 U.S.C. §103(a) as being unpatentable over an article by Agarwal and Cagan entitled "A blend of different tastes: the language of coffeemakers" in view of Balz, et al, U.S. Patent No. 5,929,865. In response, claim 10 has been cancelled and claim 20 has been rewritten to include the limitations of claims 21, 22, and 23, thereby placing claim 20 in condition for allowance. The remainder of the independent claims have been amended to incorporate the concept of arranging the subshapes in a hierarchical order. It is respectfully submitted that the two references cited by the Examiner neither disclose nor suggest the concept of the hierarchical arrangement.

The Examiner cites Balz, et al as teaching a method wherein the subshape groups have a hierarchical order of decreasing constraints citing column 3, lines 39-63 and column 4, lines 14-45. The cited portions of the reference merely refer to sorting. As seen in column 4, sorting may be performed according to values of the X coordinate. Such sorting is not a hierarchical ordering, and certainly not a hierarchical ordering according to decreasing constraints. Thus, the Balz, et al reference does not disclose or suggest the invention as set forth in the claims amended to incorporate the hierarchical arrangement.

Independent claim 30 stands rejected under 35 U.S.C. §103(a) as being unpatentable over the Agarwal article in view of Balz and further in view of Trew, et al., U.S. Patent No. 5,280,530. Claim 30 has been amended in a manner similar to the amendments made to the other claims to include the limitation of hierarchically arranging the subshape groups. It is respectfully submitted that Trew, et al does not disclose or suggest such hierarchical arrangement such that combining Trew with the teachings of the other two references does not render obvious claim 30.

Claim 23 was objected to as being dependent upon a rejected base claim but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 20 has been rewritten to include the limitations of dependent claims 21 through 23 and is therefore believed to be in condition for allowance. Claim 25 is a method claim which closely tracks allowed apparatus claim 20 and is therefore also believed to

be in condition for allowance.

The allowance of claims 27-29 is acknowledged.

New claims 32, 33, 36, 37 and 38 present the invention in a form in which the searching is done in a hierarchical manner while new claims 34, 35, 39, 40 and 41 present the invention in a form in which the subshapes are hierarchically ordered. These claims are believed to be in condition for allowance for the same reason as set forth in conjunction with the other independent claims.

No arguments have been submitted in favor of the patentability of the dependent claims. Applicants reserve the right to submit arguments in favor of the patentability of the dependent claims at a later time.

Applicants have made a diligent effort to place the instant application in condition for allowance. Accordingly, a Notice of Allowance for claims 1-9, 12, 14-20, 24-25, and 27-41 is respectfully requested. If the Examiner is of the opinion that the case is in condition for disposition other than through allowance, he is respectfully requested to contact applicants' attorney at the telephone number listed below so that additional changes may be discussed.

Respectfully submitted,



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